

N<sup>o</sup> 22,094



A.D. 1902

*Date of Application, 10th Oct., 1902—Accepted, 5rd Sept., 1903*

### COMPLETE SPECIFICATION.

#### “Process for the Sterilization of Fluids”

I, DR. LUDWIG LOOCK of 10 Gneisenaustrasse, Düsseldorf, Germany, Chemist, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5 The object of the present invention is a process for sterilizing fluids in vessels, which is characterised essentially by the arrangement that a cap of glass or the like is fitted over the mouth of the vessel, the walls of which cap are so far apart from the lips of the vessel that there remains at the top an enclosed space which space takes up the air free from germs which escapes out of the  
10 vessel during the sterilizing, and from which receptacle the said air flows back into the vessel on the cooling.

According to scientific investigations there is very seldom difficulty with bacteria freely flowing about in the air; these organisms usually attach themselves to the dust in the air and move with it. Dust, as well as bacteria, both  
15 possess even in however small a degree, a certain weight, and are consequently subject to the law of gravity. When therefore the sterilized vessels with their contents are cooled down, the equalization of the difference in pressure between the air contained in the vessels and that of the outer air does not take place suddenly, but gradually. The air current which is thus produced is not so  
20 strong that the bacterial dust or free bacteria are carried upwards and thus delivered into the interior of the vessel.

Further this action is supported by the bends placed between the vessel and the cap, thus one can usually give the cap which is usually a smooth cover a curved form for the cover which aids the action above stated.

25 By means of a device of this kind, it is rendered unnecessary to close airtight the sterilized vessels for milk and the like and nevertheless it is impossible that germs likely to influence the contents can penetrate into the bottle for the reasons given.

The accompanying drawing illustrates by way of example a specimen of a  
30 vessel adapted for this process in two modifications.

In these figures, the cap *c* is shewn fitted over the neck *b* of the bottle *a*. The walls of the cap are shewn in Figure 1 as smooth, and in Figure 2 as curved.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what  
35 I claim is:—

Process for the sterilizing of fluids in vessels consisting in covering the orifice of the vessel with a cap of glass or the like, the walls of which are so far from the sides of the vessel that there remains a space enclosed between them which receives the germless air passing on the sterilizing out of the vessel, and from

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*Loock's Process for the Sterilization of Fluids.*

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which the said air on cooling of the fluid again returns into the vessel, substantially as set forth.

Dated the 10th day of October 1902.

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Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1903.

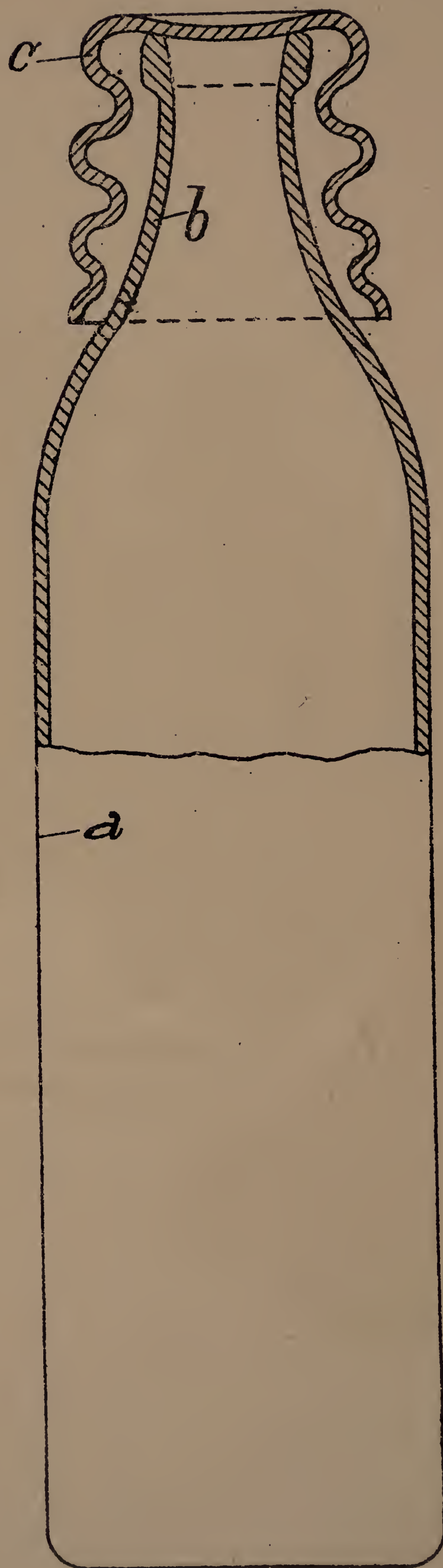




*Fig. 1*



*Fig. 2*



*[This Drawing is a reproduction of the Original on a reduced scale.]*

